

PW

CONFIDENTIAL

Release Date *July 2, 1975*
Jan 2, 1976



DUVAL CORP. WELL NO. 51 *STATE*
SE/SE Sec 18-T18N-R27E, Apache Co. 631

COUNTY Apache AREA 12 mi S. of Navajo, AZ LEASE NO. State Prospecting Permit #08-27631

WELL NAME DUVAL CORPORATION WELL NO. 51 STATE

LOCATION SE SE SEC 18 TWP 18N RANGE 27E FOOTAGE 440' FSL 617 FEL

ELEV 6174 GR KB SPUD DATE 11-8-74 STATUS PKA COMP. DATE 12-4-74 TOTAL DEPTH 1781'

CONTRACTOR Whatley Drilling Company

CASING SIZE	DEPTH	CEMENT	LINER SIZE & DEPTH	DRILLED BY ROTARY	DRILLED BY CABLE TOOL	PRODUCTIVE RESERVOIR	INITIAL PRODUCTION
10"	28'	?	NA	<input checked="" type="checkbox"/>			
7"	860'	?					
5 9/16"	1666'	50 sks					Strat

FORMATION TOPS	DEPTHS	SOURCE		REMARKS
		L.L.	E.L.	
Alluvium	0		x	
Bidahochi	11'			
Chinle	205'			
Moenkiop	1156'?			
Coconino	1267'			
Supai	1568'			

ELECTRIC LOGS	PERFORATED INTERVALS	PROD. INTERVALS	SAMPLE LOG
Radioactivity/GRN	NA	NA	SAMPLE DESCRP. SAMPLE NO. <u>1733</u> CORE ANALYSIS DSTs

REMARKS _____ APP. TO PLUG
 PLUGGING REP.
 COMP. REPORT

WATER WELL ACCEPTED BY _____

BOND CO. Federal Insurance Company *filed in PNL 75* BOND NO. 80605375
 BOND AMT. \$ 25,000 CANCELLED _____ DATE _____
 FILING RECEIPT 0220 LOC. PLAT WELL BOOK PLAT BOOK
 API NO. 02-001-20198 DATE ISSUED 10-21-74 DEDICATION NA

PERMIT NUMBER 631 **CONFIDENTIAL**
 (over) Release Date 1-16-76

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

DESIGNATE TYPE OF COMPLETION:

New Well Work-Over Deepen Plug Back Same Reservoir Different Reservoir Oil Gas Dry

DESCRIPTION OF WELL AND LEASE

Operator: Duval Corporation Address: 4715 E. Ft. Lowell Rd., Tucson, Az. 85712

Federal, State or Indian Lease Number or name of lessor if fee lease: State Prospecting Permit 27631 Well Number: 51 Field & Reservoir:

Location: 440' FSL, 4662' FWL County: Apache

Sec. TWP-Range or Block & Survey: Sec. 18, T18N, R27E

Date spudded: 11/8/74 Date total depth reached: 12/4/74 Date completed, ready to produce:

Total depth: 1781 P.B.T.D. Single, dual or triple completion? Elevation (DF, RKB, RT or Gr.) feet: 6174 Elevation of casing hd. Range feet:

Producing interval (s) for this completion: Rotary tools used (interval): 0 - 1781 Cable tools used (interval):

Was this well directionally drilled? No Was directional survey made? No Was copy of directional survey filed? Date filed:

Type of electrical or other logs run (check logs filed with the commission): Gamma Ray - Neutron Date filed: 1/2/75

CASING RECORD

Casing (report all strings set in well—conductor, surface, intermediate, producing, etc.)

Purpose	Size hole drilled	Size casing set	Weight (lb./ft.)	Depth set	Sacks cement	Amt. pulled
Protective	12"	10"	36	0 - 28'		0
Protective	8-5/8"	7"	13.87	0 - 860'		0
			17	860 - 1124'		0
Protective	6-1/4"	5-9/16"	10.76	0 - 1666'	50	0

TUBING RECORD

LINER RECORD

Size in.	Depth set ft.	Packer set at ft.	Size in.	Top ft.	Bottom ft.	Sacks cement	Screen (ft.)

PERFORATION RECORD

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

Number per ft.	Size & type	Depth Interval	Amt. & kind of material used	Depth Interval

INITIAL PRODUCTION

Date of first production: Producing method (indicate if flowing, gas lift or pumping—if pumping, show size & type of pump):

Date of test: Hrs. tested: Choke size: Oil prod. during test bbls.: Gas prod. during test MCF: Water prod. during test bbls.: Oil gravity ° API (Corr):

Tubing pressure: Casing pressure: Cal'd rate of Production per 24 hrs. Oil bbls.: Gas MCF: Water bbls.: Gas-oil ratio:

Disposition of gas (state whether vented, used for fuel or sold):

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Advanced Geological Engineer of the Duval Corporation (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Date: 1/2/75

Signature: *Ned P. Krier*

Ned P. Krier

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JAN 06 1974

O & G CON. COM. 631

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Well Completion or Recompletion Report and Well Log
Form No. 4 File One Copy

Form No. 4 File One Copy

DETAIL OF FORMATIONS PENETRATED

Formation	Top	Bottom	Description*
Alluvium	0	11	Sand; buff
Bidahochi	11	205	Clayey sand with minor clay and sand beds; locally limy.
Chinle	205	1156?	Claystone and Siltstone: variously colored; local sandstone beds.
Moenkopi	1156?	1267	Siltstone: brown, locally gray
Coconino	1267	1568	Sandstone: light tan; v.f.g. - mg, well sorted; rounded.
Supai	1568	1781	Sandstone: red-brown grading to claystone; some anhydrite; mostly halite with minor claystone and anhydrite below 1700 ft.

Note: core samples from 1681 ft. to 1781 ft.

* Show all important zones of porosity, detail of all cores, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

INSTRUCTIONS:

Attach drillers log or other acceptable log of well.

This Well Completion or Recompletion report and well log shall be filed with the State of Arizona Oil and Gas Conservation Commission not later than thirty days after project completion.

PLUGGING RECORD

Operator DUVAL CORPORATION		Address 4715 E. Ft. Lowell Rd., Tucson, Az. 85712	
Federal, State, or Indian Lease Number, or lessor's name if fee lease. State Prosp. Permit #27631		Well No. 51	Field & Reservoir
Location of Well 440' FSL, 4662' FWL		Sec. 18, T18N, R27E	Sec-Twp-Rge or Block & Survey Apache
Application to drill this well was filed in name of	Has this well ever produced oil or gas No	Character of well at completion (initial production): Oil (bbls/day) Gas (MCF/day) Dry?	
Date plugged: December 4, 1974	Total depth 1781	Amount well producing when plugged: Oil (bbls/day) Gas (MCF/day) Water (bbls/day)	
Name of each formation containing oil or gas. Indicate which formation open to well-bore at time of plugging	Fluid content of each formation	Depth interval of each formation	Size, kind & depth of plugs used. Indicate zones squeeze cemented, giving amount cement
Bidahochi		0 - 205	0- 25; 10 sacks
Chinle		205 - 1156	700- 800; 15 sacks
Moenkopi		1156 - 1267	1580-1780; 25 sacks
Coconino	salt water	1267 - 1568	
Supai		1568 - 1781 T.D.	

CASING RECORD

Size pipe	Put in well (ft.)	Pulled out (ft.)	Left in well (ft.)	Give depth and method of parting casing (shot, ripped, etc.)	Packers and shoes
10"	28	28	0		
7"	1124	0	1124		
5-9/16"	1666	0	1666		

Was well filled with mud-laden fluid, according to regulations? **Yes** Indicate deepest formation containing fresh water. **Unknown**

NAMES AND ADDRESSES OF ADJACENT LEASE OPERATORS OR OWNERS OF THE SURFACE

Name	Address	Direction from this well:

In addition to other information required on this form, if this well was plugged back for use as a fresh water well, give all pertinent details of plugging operations to base of fresh water sand, perforated interval to fresh water sand, name and address of surface owner, and attach letter from surface owner authorizing completion of this well as a water well and agreeing to assume full liability for any subsequent plugging which might be required.

Use reverse side for additional detail.

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Advanced Geological Engineer of the Duval Corporation (company) and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Date December 6, 1974

N. P. Krier
Signature
N. P. Krier

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DEC 09 1974
O & G CONS. COMM.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Plugging Record
File One Copy

Permit No. 631

Form No. 10

APPLICATION TO ABANDON AND PLUG

FIELD _____

OPERATOR Duval Corporation **ADDRESS** 4715 E. Ft. Lowell Rd., Tucson, Az 85712
 Federal, State, or Indian Lease Number _____
 or Lessor's Name if Fee Lease State Prospecting Permit #08-27631 **WELL NO.** 51

LOCATION 440' FSL, 4662' FWL, Sec. 18, T18N, R27E, Apache County

TYPE OF WELL Stratigraphic Test **TOTAL DEPTH** 1781
(Oil, Gas or Dry Hole)

ALLOWABLE (If Assigned) _____

LAST PRODUCTION TEST **OIL** _____ (Bbls.) **WATER** _____ (Bbls.)
GAS _____ (MCF) **DATE OF TEST** _____

PRODUCING HORIZON _____ **PRODUCING FROM** _____ **TO** _____

1. COMPLETE CASING RECORD.

10" casing to 28'
 7" casing to 1124'
 5-9/16" casing to 1666", set w/ approximately 140 sacks cement.

hole in 5-9/16" casing repaired by cementing between 5-9/16" & 7" casing

2. FULL DETAILS OF PROPOSED PLAN OF WORK.

Halliburton to place cement plugs as follows:

1780' - 1580'
 800' - 700'
 25' - 0'

pull 10" casing

DATE COMMENCING OPERATIONS 12/4/74

NAME OF PERSON DOING WORK Halliburton Services **ADDRESS** Farmington, N. M.

Signature *N. P. Krier*
 N. P. Krier
 Advanced Geological Engineer

Title 5357 E. Pima St., Tucson, Az. 85712

Address _____

Date Dec. 4, 1974

Date Approved 12-9-74
 STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 By: *[Signature]*

STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Application to Abandon and Plug
 File Two Copies
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 Form No. 9

Permit No. 631

DEC 09 1974

O & G Cons. Comm.

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator Dural Corporation
 2. Oil Well Gas Well OTHER (Specify) Stratigraphic Test
 3. Well Name Dural #51 State
 Location 440' FSL, 4662' FWL
 Sec 18 Twp 18N Rge 27E County Apache Arizona.
 4. Federal, State or Indian Lease Number, or lessor's name if fee lease.
State Prospecting Permit # 27631

5. Field or Pool Name

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	MONTHLY PROGRESS <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	DIRECTIONAL DRILL <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	PERFORATE CASING <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(OTHER) <u>Weekly Progress</u> <input checked="" type="checkbox"/>	ABANDONMENT <input type="checkbox"/>

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

7. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Had trouble sealing bottom of 5 7/8" casing (466')
 Hole at 750' in 5 7/8" casing plugged by setting cement between 5 7/8" and 7" casing

Halliburton set about 140 sacks cement to seal 5 7/8" casing

Cored from 1686 to 1786 ft.

Wellx ran gamma Ray - Neutron log

Halliburton set cement plugs at 1580-1780'
 700-800'
 0-25'

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8. I hereby certify that the foregoing is true and correct.

Signed Red P. Krey Advanced Geological Engineer Date 12/6/74

Permit No. 631

STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Sundry Notices and Reports On Wells
 File Two Copies
 Form No. 28

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SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator Duval Corporation
 2. Oil WELL GAS WELL OTHER (Specify) Stratigraphic Test
 3. Well Name Duval #51 State
 Location 446' FSL, 4662' FWL
 Sec. 18 Twp. 18N Rge. 27E County Apache Arizona.
 4. Federal, State or Indian Lease Number, or lessor's name if fee lease
State Prospecting Permit #09-27631
 5. Field or Pool Name _____

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:			SUBSEQUENT REPORT OF:		
TEST WATER SHUT-OFF	<input type="checkbox"/>	PULL OR ALTER CASING	<input type="checkbox"/>	WATER SHUT-OFF	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	DIRECTIONAL DRILL	<input type="checkbox"/>	FRACTURE TREATMENT	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	PERFORATE CASING	<input type="checkbox"/>	SHOOTING OR ACIDIZING	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	CHANGE PLANS	<input type="checkbox"/>	MONTHLY PROGRESS	<input type="checkbox"/>
(OTHER)	<input type="checkbox"/>			REPAIRING WELL	<input type="checkbox"/>
				ALTERING CASING	<input type="checkbox"/>
				ABANDONMENT	<input type="checkbox"/>
				(OTHER) <u>Weekly Report</u>	<input checked="" type="checkbox"/>

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

7. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

0-20' sand
 20-220' Bidakochi
 220-1090' Chinle
 1090'-1130' Shinarump
 1130'-1275' Moenkopi
 1275-1565' Colonia
 1565' — Supai

7" casing set to 1124'
 5 7/8" casing set to 1666' - with 10 sacks cement (did not hold)
 reset with "gunk squeeze" & 8 sacks cement

6PM 11/22/74 depth 1666' drilling out cement

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O & G CONS. COMM.

8. I hereby certify that the foregoing is true and correct.

Signed Ned P. Krier

Title Advanced Geological Engineer Date 11/22/74

Permit No. 631

STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Sundry Notices and Reports On Wells
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 Form No. 25

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SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator Duval Corporation
 2. Oil WELL GAS WELL OTHER (Specify) Stratigraphic Test
 3. Well Name Duval #51 State
 Location 440' ESL, 4662' FWL
 Sec. 18 Twp. 18 N Rge. 27 E County Apache Arizona.
 4. Federal, State or Indian Lease Number, or lessor's name if fee lease
State Prospecting Permit # 08-27631

5. Field or Pool Name _____
 6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	MONTHLY PROGRESS <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	DIRECTIONAL DRILL <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	PERFORATE CASING <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(OTHER) <u>Weekly Progress</u> <input checked="" type="checkbox"/>	ABANDONMENT <input type="checkbox"/>

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

7. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

11/15/74 - at 1000 ft in Chinle
Bidahochi - Chinle contact not known as hole cutting not yet logged

8. I hereby certify that the foregoing is true and correct.
 Signed Neil P. Krueger Title Advanced Geological Engineer Date 11/15/74

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STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Sundry Notices and Reports On Wells
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 Form No. 25

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator Duval Corporation
 2. OIL WELL GAS WELL OTHER (Specify) Stratigraphic Test
 3. Well Name Duval #51 State
 Location 440 FSL, ~~4662~~ 4662' FWL
 Sec. 18 Twp. 18N Rge. 27E County Apache Arizona.
 4. Federal, State or Indian Lease Number, or lessor's name if fee lease
State Prospecting Permit #08-27631
 5. Field or Pool Name _____

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:			SUBSEQUENT REPORT OF:		
TEST WATER SHUT-OFF	<input type="checkbox"/>	PULL OR ALTER CASING	<input type="checkbox"/>	WATER SHUT-OFF	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	DIRECTIONAL DRILL	<input type="checkbox"/>	FRACTURE TREATMENT	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	PERFORATE CASING	<input type="checkbox"/>	SHOOTING OR ACIDIZING	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	CHANGE PLANS	<input type="checkbox"/>	(OTHER) <u>Weekly Progress</u>	<input type="checkbox"/>
(OTHER) _____	<input type="checkbox"/>				

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

7. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Spudded on 11/8/74
 depth as of 11/8/74 — 260 ft

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8. I hereby certify that the foregoing is true and correct.

Signature Edward A. Montgomery Title Sr. Geologist Date Nov. 8, 1974

Permit No. 631

STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Sundry Notices and Reports On Wells
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 Form No. 25

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator Duval Corporation
 2. OIL WELL GAS WELL OTHER (Specify) Stratigraphic Test
 3. Well Name Duval #51 State
 Location 440' FSL, ~~4662'~~ FWL
 Sec. 18 Twp. 18N Rge. 27E County Apache Arizona.
 4. Federal, State or Indian Lease Number, or lessor's name if fee lease
State Prospecting Permit #08-27631

5. Field or Pool Name _____
 6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	MONTHLY PROGRESS <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	DIRECTIONAL DRILL <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	PERFORATE CASING <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(OTHER) <u>Weekly Progress</u> <input type="checkbox"/>	ABANDONMENT <input type="checkbox"/>

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

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Spudded on 11/8/74
 depth as of 11/8/74 — 260 ft

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 Signed Edward A. Montgomery Title Sr. Geologist Date Nov. 8, 1974

Permit No. 631

STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Sundry Notices and Reports On Wells
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 Form No. 25

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER

APPLICATION TO DRILL Stratigraphic Test RE-ENTER OLD WELL

DIVAL CORPORATION
 NAME OF COMPANY OR OPERATOR

4715 East Fort Lowell Road Tucson Arizona 85712
 Address City State

Whatley Drilling Company
 Drilling Contractor

1512 West Prince Road, Tucson, Arizona
 Address

DESCRIPTION OF WELL AND LEASE

Federal, State or Indian Lease Number, or if fee lease, name of lessor State Prospecting Permit #08-27631	Well number 51	Elevation (ground) 6174'
Nearest distance from proposed location to property or lease line: 440 feet	Distance from proposed location to nearest drilling, completed or applied--for well on the same lease: N/A feet	
Number of acres in lease: 632.80	Number of wells on lease, including this well, completed in or drilling to this reservoir: N/A	

If lease, purchased with one or more wells drilled, from whom purchased: Name Address
N/A

Well location (give footage from section lines) 440' FSL, 617' FEL	Section--township--range or block and survey Sec. 18, T18N, R27E	Dedication (Comply with Rule 105) N/A
Field and reservoir (if wildcat, so state)	County Apache	

Distance, in miles, and direction from nearest town or post office
12 miles south of Navajo, Arizona

Proposed depth: 2100'	Rotary or cable tools Rotary	Approx. date work will start October 22, 1974
Bond Status Statewide - on file	Organization Report On file <input checked="" type="checkbox"/> Or attached	Filing Fee of \$25.00 Attached <input checked="" type="checkbox"/>

Remarks:

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the **Vice President** of the **Duval Corporation** (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

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OCT 18 1974
 O & G CONS. COMM.

B. G. Messer
 Signature **B. G. Messer, Vice President**
 Date **October 17, 1974**

Permit Number: **631**
 Approval Date: **10-21-74**
 Approved By: *[Signature]*

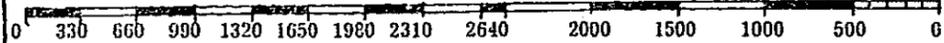
Notice: Before sending in this form be sure that you have given all information requested. Much unnecessary correspondence will thus be avoided.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
 Application to Drill or Re-enter
 File Two Copies

Form No. 3

1. Operator shall outline the dedicated acreage for both oil and gas wells on the plat.
2. A registered professional engineer or land surveyor registered in the State of Arizona or approved by the Commission shall show on the plat the location of the well and certify this information in the space provided.
3. All distances shown on the plat must be from the outer boundaries of the Section.
4. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES _____ NO X - State
5. If the answer to question four is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES _____ NO _____ If answer is "yes," Type of Consolidation N/A
6. If the answer to question four is "no," list all the owners and their respective interests below:

Owner State of Arizona	Land Description Section 18, T18N, R27E																
<table border="1" style="width: 100%; height: 150px; border-collapse: collapse;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> </tr> <tr> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> </tr> <tr> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> </tr> <tr> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> </tr> </table>																	
<p style="text-align: center;">CERTIFICATION</p> <p>I hereby certify that the information above is true and complete to the best of my knowledge and belief.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Name B. G. Messer</td> </tr> <tr> <td style="padding: 2px;">Position Vice President</td> </tr> <tr> <td style="padding: 2px;">Company Duval Corporation</td> </tr> <tr> <td style="padding: 2px;">Date October 17, 1974</td> </tr> </table> <p>I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.</p> <p style="text-align: center;">See attached Plat</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Date Surveyed October, 1974</td> </tr> <tr> <td style="padding: 2px;">Registered Professional Engineer and/or Land Surveyor Sam Lee Kuder</td> </tr> <tr> <td style="padding: 2px;">Certificate No. 9430</td> </tr> </table>		Name B. G. Messer	Position Vice President	Company Duval Corporation	Date October 17, 1974	Date Surveyed October, 1974	Registered Professional Engineer and/or Land Surveyor Sam Lee Kuder	Certificate No. 9430									
Name B. G. Messer																	
Position Vice President																	
Company Duval Corporation																	
Date October 17, 1974																	
Date Surveyed October, 1974																	
Registered Professional Engineer and/or Land Surveyor Sam Lee Kuder																	
Certificate No. 9430																	



PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
7"	17	+1	0	1300	1275-1300	5 sacks
5-9/16"	10.2	Line Pipe	0	1800	1775-1800	5 sacks

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OCT 18 1974

O & G CONS. COMM.

Fd. Brass Cap. #13
L.S. 57940

Location Map - for well site 1
located in the SE 1/4, S16 1/4 of Sec.
18, T18N, R27E, Q45E, Apache
County Arizona

Scale - 1" = 100'

Approx location
Sec. 18, T18N, R27E
Q45E, AZ

Surveyors well site was located
as shown in drawing. Elev. are to
± 0.1'

Location well
Site 1 El. 6174'

Produced line East from South
Lot 102 Lot 589 4.662'

Fd. Brass Cap.
L.S. 57940

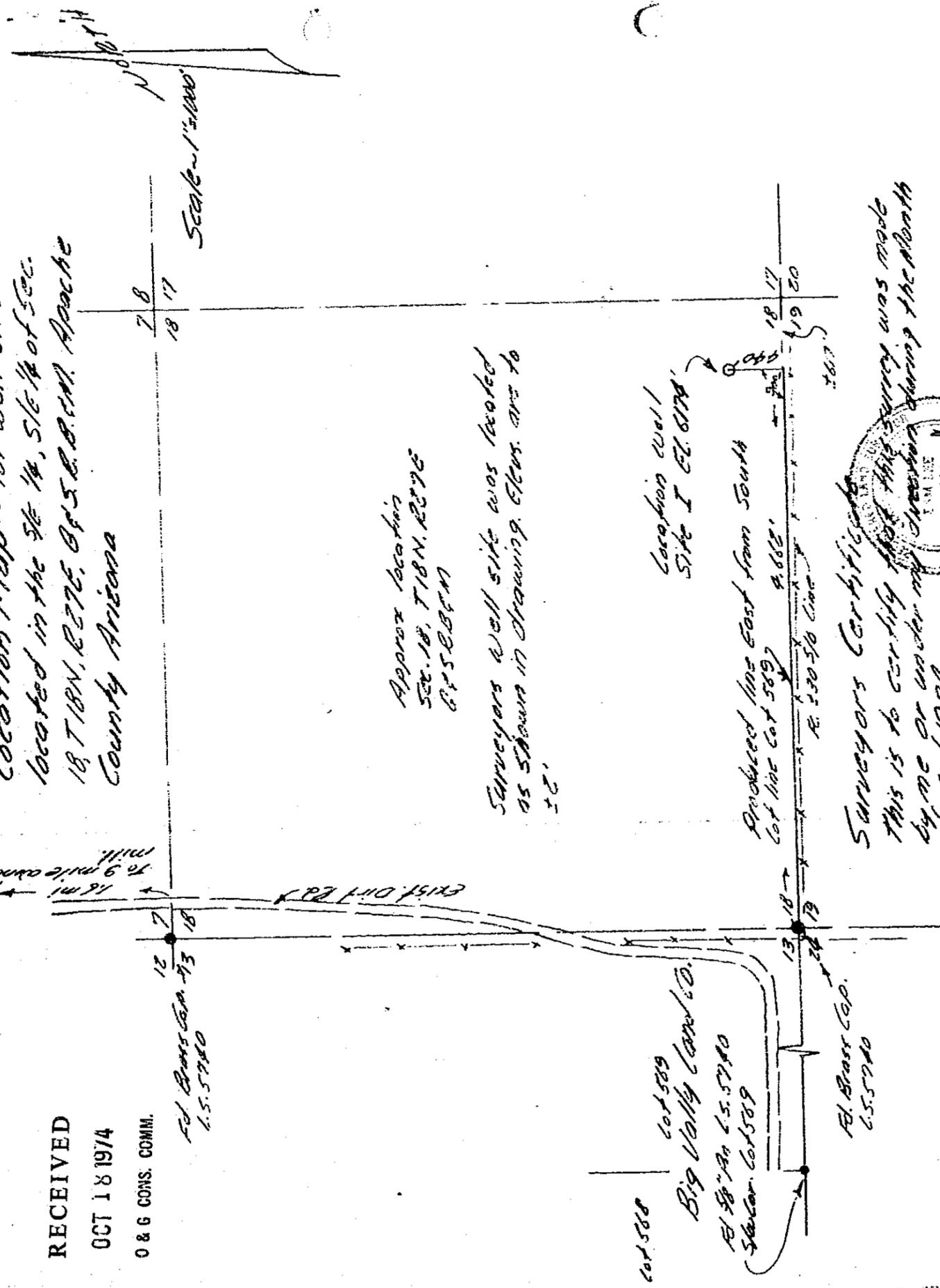
Surveyors Certificate

This is to certify that this survey was made
by me or under my direction during the month
of Oct. 1974



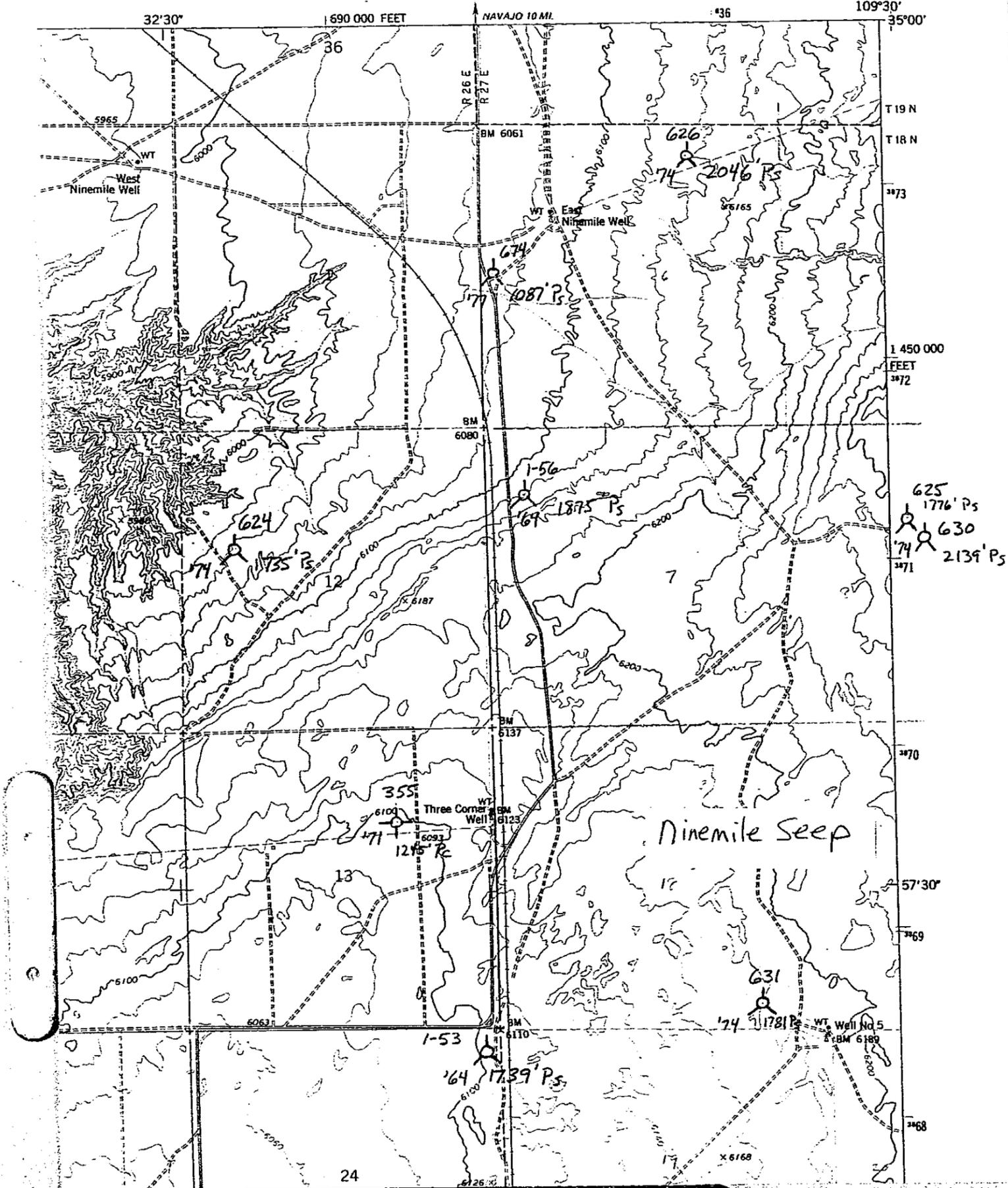
Top of page El. 6174.70

18 mi
16 mi
To 9 mile and
mill



NINEMILE SEEP QUADRANGLE
ARIZONA—APACHE CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

4154 III SW
INAVAJO SPRING





PERMIT TO DRILL

This constitutes the permission and authority from the
OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: DUVAL CORPORATION
(OPERATOR)

to drill a well to be known as

DUVAL CORPORATION WELL #51
(WELL NAME)

located 440 PSL - 617 FEL

Section 18 Township 18N Range 27E, Apache County, Arizona.

The NA of said

Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 21 day of October, 1974.

OIL AND GAS CONSERVATION COMMISSION

By W.B. Allen
EXECUTIVE SECRETARY

PERMIT No 631

RECEIPT NO. 0220
API NO. 02-001-20198

SAMPLES ARE REQUIRED

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

XXXXXXXXXXXXXXXXXXXX 8686 N. Central
XXXXXX Suite 106, 85020

Mr. Burt Renzetti
St. Joe American Exploration Corporation
2002 North Forbes Blvd.
Tucson, AZ 85705

RE: Duval Log Files

Dear Mr. Renzetti:

Warren Carr asked me to send you these logs on all Duval wells.
Also enclosed is an invoice for \$13.00 for cover the copying of
these logs. Our charge is 25¢ per foot. The total footage for
all the files was 52'.

If we can be of further service, please advise.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/si

Enclosures



OFFICE OF

Oil and Gas Conservation Commission

STATE OF ARIZONA

PHOENIX, ARIZONA

8686 N. Central
Suite 106, 85020

PHONE: (602) 271-5161

January 14, 1976

Ms. Kay Waller
Petro-Well Libraries, Inc.
150 Security Life Building
1616 Glenarm Place
Denver, Co. 80202

RE: JANUARY CURRENT MATERIAL

Dear Kay:

Enclosed you will find the following current material for January.

DATA: Completion reports and miscellaneous reports on Duval Corporation
Wells' No. 50, Permit #630; No. 51, Permit #631; No. 52, Permit #632.

Logs: Gamma-Ray Neutron for Permit #630; Welex Radioactivity Log for Permit
#631 and Gamma-Ray Neutron for Permit #632.

Thank you.

Saralee Lorenzo
Secretary

Encls.



OFFICE OF

Oil and Gas Conservation Commission

STATE OF ARIZONA

~~XXXXXXXXXXXXXXXXXXXX~~
PHOENIX, ARIZONA 85012
~~XXXXX~~

8686 N. Central
Suite 106, 85020

PHONE: (602) 271-5161

January 20, 1976

Mr. Rollo Pool
Petroleum Information
Box 301
Durango, Co 80301

Dear Rolo:

Enclosed please find pertinent information for Duval's wells #50, 51 & 52. Also enclosed is an invoice for \$6.30 covering the copying of 18 copies at 35¢ each.

Thank you.

Saralee Lorenzo
Secretary

C 70
1-16-76

Release Serial #51, Permit 631
from confidential file. Send

Pertinent Info to:

Petroleum Info
Petro well Lib.
Dr. Pierce
Joe Melling



4715 EAST FORT LOWELL ROAD TUCSON ARIZONA 85712

April 8, 1975

Mr. W. E. Allen, Director
Enforcement Section
Oil and Gas Conservation Commission
4515 North 7th Ave.
Phoenix, Arizona 85013

Re: Duval Corporation Well #48
Sec. 8-T18N-R27E
Apache County
Permit No. 625

Dear Mr. Allen:

Duval Corporation Well #48 is classified as a stratigraphic test hole, therefore, pursuant to Rule 203 A we request that any information submitted on said hole please be considered confidential for an additional six month period.

Likewise we would like to request that all such information on our drill holes located in this general area be treated in this same manner. To date Duval drill holes nos. 47, 49, 50, 51 and 52 have been completed on Drill permits nos. 624, 626, 630, 631 and 632 respectively.

Thanks for any consideration given this request.

Very truly yours,

DUVAL CORPORATION

by: B. G. Messer
B. G. Messer
Vice President-Minerals Acquisition

BGM:rg

cc: E. S. Montgomery

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APR 10 1975



OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
4515 NORTH 7TH AVE.
PHOENIX, ARIZONA 85013
PHONE: (602) 271-5161

April 7, 1975

Mr. B. G. Messer
Vice President-Minerals Acquisition
Duval Corporation
4715 East Fort Lowell Road
Tucson, Arizona 85712

Re: Duval Corporation #48
Sec 8-T18N-R27E
Apache County
Permit No. 625

Dear Mr. Messer:

This is to advise you that the confidentiality period on Well No. 48, referenced above, will expire on April 9, 1975. Should you wish an extension on this and all future wells, please advise.

Also, please note the attached change of address effective April 15, 1975.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/r1b

Enc.

cc Ed Montgomery

631



5357 EAST PIMA TUCSON ARIZONA 85712

January 3, 1974

Mr. William E. Allen
Oil and Gas Conservation Commission
4515 North 7th Avenue
Phoenix, Arizona 85013

re: Duval Corp. #51
Sec. 18, T18N, R27E
Apache County
Permit No. 631

Dear Mr. Allen:

Enclosed are "Well Completion or Recompletion Report and Well Log",
form no. 4 and a Gamma Ray - Neutron Log for our Well No. 51.

Sincerely,

A handwritten signature in cursive script, appearing to read "Ned P. Krier".

Ned P. Krier
Advanced Geological Engineer

NPK:hdh

encl.

cc: B. G. Messer

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JAN 03 1974

U.S. GEOLOGICAL SURVEY

631

October 21, 1974

Mrs. Jo Ratcliff
Four Corners Sample Cut Association
P. O. Box 899
Farmington, New Mexico 87401

Dear Mrs. Ratcliff:

The following permit has been issued since October 1, 1974.

Duval Corporation Well No. 51
SE/SE Section 18-T18N-R27E
Apache County
Permit No. 631

Very truly yours,

Rhema Brandt
Secretary to W. E. Allen
Director, Enforcement Section

/rlb

63

October 21, 1974

Mr. B. G. Messer
Duval Corporation
4715 East Fort Lowell Road
Tucson, Arizona 85712

Re: Duval Corp. Well No. 51
SE/SE Sec 18-T18N-R27E
Apache County
Permit No. 631

Dear Mr. Messer:

Enclosed please find Receipt No. 0220 covering your \$25 filing fee.
Also enclosed is your approved Application for Permit to Drill and
Permit to Drill No. 631.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rib

Encs.

631



4715 EAST FORT LOWELL ROAD TUCSON ARIZONA 85712

October 17, 1974

Mr. W. E. Allen, Director
Enforcement Section
Oil and Gas Conservation Commission
State of Arizona
4515 North 7th Avenue
Phoenix, Arizona 85013

Dear Mr. Allen:

Enclosed is an application for Permit to Drill the following core test in Apache County:

Duval Hole No. 51 located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$
Section 18, T18N, R27E.

Also enclosed is our check in the amount of \$25.00 covering the filing fee for above permit.

Yours very truly,

DUVAL CORPORATION

by: B. G. Messer
B. G. Messer
Vice President-Minerals Acquisition

BGM:rg
Enclosures

cc: E. S. Montgomery

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OCT 18 1974

O & G CONS. COMM.

